

oval dark brown velvety area on each side of the disk, which is bounded by a narrow pale yellowish margin. The elytra are furnished with some sparsely scattered granules towards the base, and with some sparse punctures, each of which is marked in position by a small dark spot.

This species may be easily recognized by the two large oval and dark brown velvety areas on the pronotum.

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

December 21, 1892.—Prof. J. W. Judd, F.R.S.,
Vice-President, in the Chair.

The following communications were read:—

1. "On a Sauropodous Dinosaurian Vertebra from the Wealden of Hastings." By R. Lydekker, Esq., B.A., F.G.S.

In addition to *Hoplosaurus armatus* and *Pelerosaurus Conybearci*, there is evidence of another large Sauropodous Dinosaur in the Wealden, now known as *Morosaurus brevis*. Up to the present time it has been impossible adequately to compare *Hoplosaurus armatus* with *Morosaurus brevis*; but recently Mr. Rufford has sent to the British Museum an imperfect dorsal vertebra of a large Sauropodous Dinosaur from the Wealden of Hastings, which enabled the required comparison to be made. The Author describes the vertebra, contrasts it with that of *Hoplosaurus armatus*, and gives presumptive evidence that it should be referred to the so-called *Morosaurus Becklesi* (Marsh), which apparently cannot be separated from *M. (Cetiosaurus) brevis*. He has not been able to compare Mr. Rufford's specimen with the dorsals of the American *Morosaurus*, in order to discover whether the English Dinosaur is correctly referred to that genus.

2. "On some additional Remains of Cestraciont and other Fishes in the Green Gritty Marls, immediately overlying the Red Marls of the Upper Keuper in Warwickshire." By the Rev. P. B. Brodie, M.A.

The vertebrate remains occur in a very thin band of marly friable sandstone lying between two beds of green marl, though in some places the same bed has itself no admixture of sandy material. Bones and teeth are so numerous that it might almost be called a bone-bed. It does not exceed three inches in thickness. It contains ichthyodorulites of Cestraciont fishes, abundant palatal teeth of *Acrodus keuperinus*, ganoid fish-scales, and abundant broken bones, some of which may belong to fishes, others to labyrinthodonts, and amongst the latter a fragment of a cranial bone.

3. "*Calamostachys Binneyana*, Schimp." By Thomas Hick, Esq., B.A., B.Sc. Communicated by J. W. Davis, Esq., F.G.S., F.L.S.

A number of preparations lately placed in the hands of the Author by Mr. W. Cash, of Halifax, give much additional information on many important points of detail connected with the

structure and characters of the sporiferous spike known as *Calamostachys Binneyana*, and also throw considerable light on the question of its affinities. The Author fully describes the structure of the fossil, and discusses its systematic position. His description shows the close resemblance between the structure of this spike and that of *Equisetum*; and it is noted that Carruthers, in 1867, did not hesitate to describe *Calamostachys Binneyana* as the fruit of *Calamites*, and that Binney, when making it the fruit of *Calamodendron commune*, was in practical agreement with Carruthers. Williamson, however, realizing the difficulty of reconciling the supposed vascular central part of the axis of the spike with a Calamitean affinity, suggested that the relationship lies rather with the Lycopodiaceæ. Now the establishment in the present paper of the existence of parenchymatous pith in the axis of the spike removes the chief ground for Williamson's suggestion; and the demonstration of the existence of primary vascular bundles with carinal canals affords positive proof of the closeness of its relationship with the Calamitæ. The Author gives reasons for concluding that there is much probability that the fossil described in the paper is a spike of a *Calamites* of the type of *Arthropitys*.

4. "Notes on some Pennsylvanian Calamites." By W. S. Gresley, Esq., F.G.S.

The Author believes that a group of specimens from the Pottsville conglomerate series demonstrates that the so-called Calamite-casts in sandstone are not always to be regarded as casts of pith-cavity only, but are often casts of the vascular cylinder as well; also that these specimens show that some Calamites, at all events, possessed furrowed exteriors or barks. A specimen from the Pittston bed of anthracite in the Wyoming basin also seems to suggest that the true bark had not always a smooth exterior.

A specimen from the same geological horizon as the last specimen, and from a neighbouring locality, indicates a Calamite of gigantic proportions. Another specimen, from the Pittsburgh bed, is remarkable as showing two branch-scars not on, but below the nodes of the Calamite.

MISCELLANEOUS.

The Dates of Moore's 'Lepidoptera Indica.'

To the Editors of the 'Annals and Magazine of Natural History.'

GENTLEMEN,—The extreme importance of the exact dating of publications which contain new generic or specific names is now so generally recognized that no apology is needed for bringing before the notice of your readers a particularly gross case, whereby the author eventually obtains six months or more priority over other writers. The foolish practice of throwing away the wrappers of separately published parts of a serial work, instead of binding them up *in place exactly as issued*, is so common that those who pre-date